CLAIMS

1. . An adaptive equalizer comprising:

- an equalizer filter (32) for filtering a distorted signal from a communication channel, having a data signal input (30) for receiving said distorted signal, a feedback signal input for a feedback control signal, and which generates an output signal at an output node (35);
- circuitry (46) for processing said output signal and generating said feedback control signal, the circuitry comprising
  - o a first means (38) for measuring a short-term-amplitude signal of said output signal,
  - o a second means (38) for measuring a long-term-amplitude signal of said output signal,
  - o a comparator means (43) that compares said short-term-amplitude signal and said long-term-amplitude signal and that determines the evolution of said feedback control signal,

arranged such that said distorted signal is compensated for its higher frequency attenuation in said communication channel.

2. An adaptive equalizer such as in claim 1, wherein the short-term-amplitude signal of the output signal is indicative for the amplitude of the high-speed component of said output signal.

3. An adaptive equalizer such as in claim 1 or 2, wherein the long-term-amplitude signal is indicative for the amplitude of the output signal stripped from its possible overshoot peaks.

4. An adaptive equalizer such as in any of the claims 1 to 3, wherein the short-term-amplitude signal

of the output signal is generated by a circuit comprising a high-pass filter and a peak detector.

5. An adaptive equalizer such as in any of the claims 1 to 4, wherein the long-term-amplitude signal of the output signal is generated by a circuit comprising a low-pass filter and a peak detector.

6. An adaptive equalizer such as in any of the claims 1 to 5, wherein said output signal is fed to a limiting amplifier (36) to produce a digital output signal.

7. An multi-stage adaptive equalizer comprising at least a first and a second adaptive equalizers such as in any of the claims 1-5, wherein the output signal of said first adaptive equaliser is fed to the data input node of said second adaptive equaliser.

8. A method for adaptively equalising a distorted signal comprising high frequency attenuation received from a communication channel, comprising the steps of:

- Filtering said distorted signal and providing an output signal at an output node,
- Comparing a short-term-amplitude signal of said output signal to a long-term-amplitude signal of said output signal to provide a feedback signal, and
- Providing a feedback signal to compensate said high frequency attenuation in said distorted signal.

9. The method as in claim 8, wherein the short-term-amplitude signal of the output signal is indicative for the amplitude of the high-speed component of the output signal.

10. The method as in claim 8 or 9, wherein the long-term-amplitude signal is indicative for the amplitude of the output signal stripped from its possible overshoot peaks.